



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/361,458	07/27/1999	JONATHAN H. MEIGS	30-4590	5541

7590 04/04/2002

RICHARD S. ROBERTS  
ROBERTS & MERCANTI, L.L.P.  
P.O. BOX 484  
PRINCETON, NJ 08542-0484

EXAMINER

EASTHOM, KARL D

ART UNIT	PAPER NUMBER
2832	

DATE MAILED: 04/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. <b>09/361,458</b>	Applicant(s) <b>Meigs et al.</b>
	Examiner <b>Karl Easthom</b>	Art Unit <b>2832</b>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1)  Responsive to communication(s) filed on Feb 21, 2002.
- 2a)  This action is FINAL.      2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

#### Disposition of Claims

- 4)  Claim(s) 1-11 and 21-29 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-11 and 21-29 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved.
- 12)  The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

- 13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)  All b)  Some\* c)  None of:

1.  Certified copies of the priority documents have been received.
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

- |  |  |
|--|--|
| 15) <input type="checkbox"/> Notice of References Cited (PTO-892)                              | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)          | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ | 20) <input type="checkbox"/> Other: _____                                    |

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

2. Claims 1-11 and 21-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Hunt et al. Hunt discloses the claimed invention at the abstract and cols. 22-24, see col. 24, lines 44-50 for the nonconductive particulate material (eg. alumina). In claims 6-7, 11, and 28-29, the foil is copper 403 at Fig. 5b, see col. 28, lines 34-43. In claims 3-10, copper and other metals are disclosed at col. 22. In claim 21, col. 22 discloses nickel. In claims 22-23, the range is met since the wt % is varied, see col. 25, lines 19-27. The product by process of electrodeposition does not render the claimed subject matter distinct, where there is no allegation of any structural difference, and applicant has the burden of proving a difference.

3. Claims 1-5, 21-23, and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Van Den Broek et al. Van Den Broek discloses the claimed invention at cols. 1-2 with copper palladium and alumina for example. The CuNi meets claim 21. The product by process of electrodeposition does not render the claimed subject matter distinct, where there is no allegation of any structural difference, and applicant has the burden of proving a difference.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6-11, 24-26 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Den Broek et al. in view of either Clouser, Castonguay et al., or Lindblom et al. XP '182 discloses the claimed invention as noted above except for the foil comprising copper (claim 3 and others), and except for the conductive metal layer or multilayer foil (claims 6, 11 and others). Clouser (col. 1, lines 15-25, col. 4, lines 50-58, col. 5, lines 60-65 - noting nickel or copper foils), Castonguay et al. (col. 1, lines 10-21), or Lindblom et al. (col. 1, lines 12-25, col. 3, lines 40-52 - Invar having nickel)) disclose conventional circuit boards as laminates having conductive foils of nickel, copper, etc for the purpose of forming a circuit board with ready etching (see col. 1 of Castonguay et al.). It would have been obvious to form a circuit board as a laminate with a foil of any of the known conductors typically employed for the circuitry where Van Den Broek et al. discloses a resistive material of a high ohmic value, and Clouser discloses increasing resistance with additives at col. 4, lines 64-68, suggesting the need for high ohmic resistors for circuit boards.

6. Applicant's arguments filed 2/24/02 have been fully considered but they are not persuasive. Applicant alleges that Van Den Broek and Hunt employ different processes so that the claims are distinct. This does not meet the burden of proving distinctness where there is no allegation or evidence as to what structural difference exists. As to Van Den Broek, sputtering, or evaporation is disclosed. This is a thin film process similar to that of Hunt, and that of applicant, so that any distinction is not seen. A thin film resistor results. See MPEP 2113:

**PRODUCT - BY - PROCESS CLAIMS ARE NOT LIMITED TO THE MANIPULATIONS OF THE RECITED STEPS, ONLY THE STRUCTURE IMPLIED BY THE STEPS**

"Even though product - by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product - by - process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe , 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted)....

**ONCE A PRODUCT APPEARING TO BE SUBSTANTIALLY IDENTICAL IS FOUND AND A 35 U.S.C. 102 / 103 REJECTION MADE, THE BURDEN SHIFTS TO THE APPLICANT TO SHOW AN UNOBlOUS DIFFERENCE**

"The Patent Office bears a lesser burden of proof in making out a case of *prima facie* obviousness for product - by - process claims because of their peculiar nature" than when a product is claimed in the conventional fashion. In re Fessmann,180 USPQ 324, 326 (CCPA 1974). Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product.

The sintering and compacting step argued in Van Den Broek is for the target used in the sputtering, not the final product. On the other hand, there are thick films such as the paste of Tani, the product would be distinct from applicant's thin film process, and that argument is accepted, with Tani and Yamada thus removed as rejections. Since the references combined all employ thin film processes, and with the motivation supplied - the need for high ohmic resistors on circuit boards, the argument against combination with Van Den Broek is not persuasive. As to Casonguay, since electrodeposition is employed, it must have particles if applicant has particles. How can one be different if the steps used to make the product are the same ? See MPEP 2112:

Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established. In re Best,195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the

applicant and the prior art are the same, the applicant has the burden of showing that they are not." In re Spada, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the *prima facie* case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best, 195 USPQ 430, 433 (CCPA 1977)...

See also Titanium Metals Corp. v. Banner, 227 USPQ 773 (Fed. Cir. 1985) (Claims were directed to a titanium alloy containing 0.2 - 0.4% Mo and 0.6 - 0.9% Ni having corrosion resistance. A Russian article disclosed a titanium alloy containing 0.25% Mo and 0.75% Ni but was silent as to corrosion resistance. The Federal Circuit held that the claim was anticipated because the percentages of Mo and Ni were squarely within the claimed ranges. The court went on to say that it was immaterial what properties the alloys had or who discovered the properties because the composition is the same and thus must necessarily exhibit the properties.);

**7. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**8.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl Easthom whose telephone number is (703) 308-3306. The examiner can normally be reached on M-Th from 5:30AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad, can be reached on (703) 308-7619. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



KARL D. EASTHOM  
PRIMARY EXAMINER